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JAPANESE PATENT OFFICE

PATENT ABSTRACTS OF JAPAN

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G02B 7/26(21) Application number: **53108047**(22) Date of filing: **05.09.78**(71) Applicant: **NIPPON TELEGR & TELEPH
CORP <NTT>**(72) Inventor: **SATO KENICHI
MATSUMOTO TAKAO**(54) **OPTICAL FIBER FUSION SPLICING METHOD**

(57) Abstract:

PURPOSE: To realize fusion splicing of optical fibers under the optimum condition, by detecting the light not propagated to the secondary side optical fiber by means of a photo detector disposed in the vicinity of the fusion splicing point, and adjusting the splicing point so that the output of detection may be minimum.

CONSTITUTION: A primary side fiber 3 and a secondary side fiber 6 are disposed together with inching tables for adjustment 4, 5. A photo detector 8 located in the vicinity of a splicing point possesses a slit of which width is slightly larger than the outside diameter of fiber, and a solar battery 11 having a slit slightly wider than the outside diameter of fiber, and also has a V-groove 12 between 10 and 11. A fiber 6 is disposed in the place of the V-groove, and a rectangular parallelepiped block 13 is disposed for fixing purpose. The battery 11 receives the light not becoming the propagation mode of the core part of the fiber 6 (mainly the clad mode and scattered light). Then, by controlling so that the output of the solar battery 11 may be minimum, and adjusting the relative position, angle and other conditions of the primary and secondary

fiber 3, 6 at the splicing point, the splicing loss may be kept to a minimum.

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